

**ABSTRACT OF THE DISCLOSURE**

Method and apparatus for providing a long loop broadband service which allows data from different ADSL users to be shared and transported across a group (possibly a group of one) of line-powered, repeatered copper pairs utilizing a symmetric transmission approach is disclosed. Multiple ADSL users are able to share the bandwidth on pair(s) between the Remote Terminal Unit and Central Termination Unit by converting the ADSL data into ATM cells that are properly addressed and sent over the pair(s). Straight-Through Repeaters can be used in between the Central Termination Unit and the Remote Termination Unit on each of the pairs to extend the reach of the system. In this manner, the reach of ADSL (or other) internet access can be increased from its present 15 to 18 kft limitation to over 40,000 feet using 26 gauge wire, effectively reaching over 99% of subscribers.